

Module 2

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 2 Instructor Notes

Slide 2-1: Module 2 Talking to Clients and Planning Work

- This is the module title slide.
- Announce the module.
- This module focuses on a practical application of the previous lessons. Workers and supervisors have the most contact with owners or clients, but mostly sales staff and company owners will be explaining how lead-based paint is properly addressed.

Module 2

Talking to Clients and Planning Work

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Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 2 Instructor Notes

Slide 2-2: Module 2 Overview

- This module covers the bulleted list of topics on the slide. Review this list with the class participants.
- The purpose of the module is to explain why planning is important, present information about talking to clients about the lead safe work practices, and walk students through a set of questions to help them plan a job.
- At the end of this module, participants will be able to answer the following questions:
 - Do I need to use lead-safe work practices?
 - How can I communicate the associated planning, cost, and time issue information to the residents?

Module 2 Overview

◆ **At the end of this module, you will be able to answer the following questions:**

- Do I need to use lead safe work practices?
- How can I communicate information about the associated planning, cost, and time demands to the residents?
- Should the paint be tested before starting work?

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Planning Ahead

- You should also talk to the residents about why you are performing lead safe work practices and describe what the residents can do to help prevent the spread of dust both before you start the project and while you are working.
- To safely work in homes with lead-based paint, it is essential that you plan a strategy to reduce the creation of dust and contain any dust created. The time invested in these activities will ensure your project is conducted safely with regards to lead dust hazards and expedite the cleanup process.

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Module 2 Instructor Notes

Slide 2-3: What are Your Supervisor's or Agency's Responsibilities?

Review requirements for talking to clients.

- Have students refer to the handout *Resources for Additional Information*, which lists various places where they can obtain both pamphlets as well as other information regarding lead-based paint.
- Ask students if they have any questions concerning their obligations under EPA regulations.
- Remind students to check with state and local governments to find out if they have any additional rules, regulations, and requirements for working with lead-based paint. The National Conference of State Legislatures (NCSL) provides periodic updates to state laws affecting lead-based paint for all states. The 1999 compilation is located at:
<http://www.ncsl.org/programs/ESNR/pblaw99.htm>.

What are Your Supervisor's or Agency's Responsibilities?

- ◆ Under federal law, if disturbing more than 2 sq. ft. of painted surfaces in pre-1978 housing, you **MUST**:
 - Give residents copies of the pamphlet *Protect Your Family From Lead In Your Home* (see attachments)
 - Get confirmation that residents received the pamphlet
 - Keep confirmation records for three years
- ◆ See ***The Lead Pre-Renovation Education Rule (40 CFR Part 745) or Lead-Based Paint Poisoning Prevention In Certain Residential Structures (24 CFR Part 35)*** for confirmation forms and guidance (see attachments)

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Legal Obligations

- Federal law requires contractors to tell occupants about the risks of lead-based paint before non-emergency repair, maintenance, and home renovation work begins. This law applies to all work on surfaces greater than 2 square feet per component. Contractors **MUST**:
 - Give residents a copy of the pamphlet *Protect Your Family From Lead In Your Home* before starting any work.
 - Either have the resident sign an acknowledgment form after receiving the pamphlet or send the resident a copy of the pamphlet via certified mail.
 - Keep copies of the residents' confirmation of receipt of the lead pamphlet or certificate of mailing for three years as documentation of your compliance with the regulations.
- Forms for confirmation of receipt of the lead pamphlet are included in the *Lead Pre-Renovation Education* handbook in Appendix 4.
- Copies of both the *Protect Your Family From Lead In Your Home* and the *Lead Pre-Renovation Education Rule* handbook are included in Appendices 3 and 4, respectively. See the handout: *Resources for additional information* that accompanies the exercise later in this lesson for a list of where you can obtain these documents.
- Some states and local governments may have additional requirements for working on homes with lead-based paint. You can periodically check with the National Conference of State Legislatures (NCSL) for updates to state laws affecting lead-based paint for all states. The 1999 compilation is located at:
<http://www.ncsl.org/programs/ESNR/pblaw99.htm>.

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Module 2 Instructor Notes

Slide 2-4: Talking to Residents about your Skills

- Lead-safe work practices cost extra money. This slide will help students describe why they are using lead-safe work practices and explain why they are qualified to conduct these activities
- **Discussion**
 - Ask students if they can think of any other reasons why using lead-safe work practices is a good idea (any other selling points for clients?). Also, ask students for other examples of why they are qualified to conduct these activities. How could they put a spin on this to strengthen the selling point?

Talking About Your Skills

◆ Why are you using lead-safe work practices?

- Keep the house safe
- Protect health of children and pregnant women
- Good professionalism

◆ Why are you qualified to conduct these activities?

- Completed this course
- Use lead-safe tools and supplies
- Experience with lead-safe work practices

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- In addition to any generic communication you have with residents during a renovation, remodeling, or rehabilitation job, they must be informed that your work has the potential to create lead dust. The EPA pamphlet *The Lead-Based Paint Pre-Renovation Rule* provides good pointers for talking to clients. The following topics should be discussed with the homeowner prior to beginning any renovation or remodeling job that has a potential to create lead dust:

Why are lead safe work practices a good idea?

- Incorporating lead safe work practices into your renovation, remodeling, and rehabilitation activities will:
 - Protect children's and workers' health
 - Keep the house safe from increased levels of lead dust
 - Is an example of good professionalism
- Module 1 presented more detailed information on these topics. Also, you can refer to the *Lead Paint Safety Field Guide* in Appendix 1 or to EPA pamphlet *Protect Your Family From Lead in Your Home* in Appendix 3 for additional information.

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Module 2 Instructor Notes

Slide 2-5: Discussing the Work Plan

- This is a continuation of topic outlined on the previous slide
- Remind students that it is advisable to ask the residents to move and clean items in the house before you begin the work. This will make it easier to perform both the renovation work and the clean up. Additionally, if the residents move the items, you will not have to worry about being responsible for any items damaged or lost in the process of being moved.

Discussing the Work Plan

◆ Discussing the work plan with residents

- Coordinate with program administrators and supervisors
- What lead safe work practices are planned?
- How will this work affect the residents' use of the house?
- How will you protect the residents' possessions from lead dust contamination?
- What activities will you expect the residents to perform before you begin your work?

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Discussing the work plan with residents

- In addition to discussing the hazards associated with lead-based paint and lead dust, you or your supervisor should review your plan for lead-safe work practices with the residents. This includes:
 - Describing how you will protect residents' possessions from further lead dust contamination
 - Identifying the activities you expect the residents to perform before you begin your work
- It is much easier to prevent possible problems during set-up than to do extra cleaning afterward. You may want to ask resident(s) to move some items before you begin your work. These include moving any furniture and fixtures out of the work area and storing them away from any work that may create dust. Seal over remaining items with polyethylene protective sheeting where possible. Moving items such as drapes, area rugs, and plants will reduce the potential for contaminating them with lead dust. If the paint in the work area is already deteriorated, you may suggest that the residents clean these items prior to moving them to other areas of the house to minimize the amount of lead dust that is distributed to other areas of the house. If the residents move and clean these items before the renovation work begins, you will not have to worry about being responsible for damaged or lost items.

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Module 2 Instructor Notes

Slide 2-6: Why Evaluate the Job for Lead?

- This slide present the reasons why you should evaluate a job for lead prior to beginning work. Note that the following slides present questions to help walk students through the planning stage.
- Review the list of reasons with students.
- Note that the next set of slides goes into detail on key aspects of evaluating the job. These aspects include evaluating the property, evaluating the work, scheduling the work and evaluating the effects on your job.

Why Evaluate the Job for Lead?

- ◆ Reduce your potential liability from lead dust
- ◆ Incorporate lead activities into your work schedule
- ◆ Use lead-safe work practices
- ◆ Have the right materials and equipment
- ◆ Include the cost of lead-safe work practices
- ◆ Discuss occupant protection with residents
- ◆ OSHA regulations require employers to determine if employees will be exposed

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Why Evaluate Your Job

- There are a number of reasons why you should determine if your job will create lead dust prior to starting to work. These include:
 - Ensuring your activities will not create additional hazards or potential liabilities from lead dust.
 - Including lead dust control activities in your work schedule.
 - Using appropriate lead safe work practices.
 - Having materials and equipment on hand to safely manage lead dust, minimize the amount of dust created, and reduce the potential for spreading dust to other parts of the dwelling or surrounding area.
 - Accurately estimating the costs of the additional time, labor, and supplies needed to perform lead-safe work practices.
 - Making sure that this is a job you want to go into.
 - Developing a list of issues and preparing to discuss them with owners and occupants.
- It is a good idea to discuss lead-based paint, lead dust, and occupant protection with the residents before beginning the work. This allows you to sell this service to the residents and positively distinguish yourself from the competition.
- See the Field Guide pp. 11, 75, and 76.

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Module 2 Instructor Notes

Slide 2-7: Evaluating the Property

- Present the following information before talking about this slide.
 - Lead-safe work practices include activities that are not typically part of a student's everyday work. In addition to the typical questions asked when beginning a renovation, remodeling, or rehabilitation project, they should ask a few basic questions when planning jobs that may create lead dust. The following slides will walk through these questions. (Note: These questions are outlined on a worksheet covered in Module 4 that can be used at the beginning of a project.)
- **Review information on slide with students**
 - In general, lead safe work practices should be performed on properties built prior to 1978. A written owner affidavit is an acceptable way to determine the age of the house. If the affidavit appears inaccurate based upon your experience it is appropriate to ask questions. There are some exceptions; if all of the renovation, remodeling, or rehabilitation work will be conducted in a property that was built after 1978, or if documentation exists from an EPA or State certified inspector or risk assessor that there is no lead-based paint in the work area, lead-safe work practices are not required. Additionally, some localities may have restricted lead paint before 1978. If a risk assessor has already evaluated the property and identified hazards, you may wish to talk at greater length with the property owner about the level and cost of work that you intend to do. If the residence is federally funded, you may wish to suggest that it may be a job for an abatement contractor.
- **Information on certified inspectors or risk assessors**
 - Certified inspectors or risk assessors are individuals who have been trained and certified by EPA or an authorized State or Indian Tribe to conduct lead-based paint inspections or risk assessments. These activities include laboratory testing of dust to determine if paint contains lead dust at levels that can be harmful to human health.
 - Additional information on lead evaluations and certified inspectors or risk assessors can be found at EPA's lead website: www.epa.gov/lead or from the National Lead Information Center at 1-800-424-LEAD.

Evaluating the Property

◆ Was the residential building constructed before 1978?

- If yes, take proper action and use lead-safe work practices
- If no, you do not have to worry about lead dust.

◆ Has the paint been tested for lead?

- If yes, collect documentation of what and where

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Was the property constructed prior to 1978?

- Many buildings constructed before 1978, especially those constructed prior to 1960, contain some lead-based paint. Unless otherwise documented, you should always assume that painted surfaces from pre-1978 houses include lead-based paint and that all dust generated from these surfaces may contain lead. Although the amount of lead-based paint found in homes varies, older dwellings typically contain higher concentrations of lead paint.
- **What is the age of the property?** If the property was constructed after 1978, you do not need to worry about performing lead safe work practices. The resident should be your first source for this information. They can get information on the age of the property from tax records or property deeds.
- **Has any prior renovation work been done?** If all of your work will be conducted in a dwelling constructed or renovated after 1978, you do not need to utilize lead-safe work practices, even if the rest of the property was built earlier. You should ask the owner for this information. If the owner does not know if or when renovation work was conducted, and the property was constructed prior to 1978, you should assume all paint surfaces contain lead-based paint.
- **Has a lead evaluation been conducted (for federally funded properties)?** Lead evaluations cover a range of activities that test for lead-based paint. If the owner has documentation that an EPA or state certified inspector or risk assessor performed a lead evaluation and found that no lead-based paint is present in the work area, you do not have to utilize lead safe work practices, regardless of the age of the property.

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Module 2 Instructor Notes

Slide 2-8: Evaluating the Work

- This slide presents questions students should ask about the potential for their activities to produce lead dust.
- How to rewrite job descriptions for extra precautions: pre-cleaning, set-up, work practices, clean up.
- If necessary, review the concept of high dust activities with students.

Evaluating the Work

◆ Will this job:

- Disturb painted surfaces?
- Otherwise create or disturb lead dust?

◆ If yes, take proper precautions:

- Pre-cleaning
- Set-up
- Work practices
- Clean up
- Clearance

◆ Will this job create high levels of dust?



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Will the work disturb painted surfaces, or create / disturb dust that may contain lead?

- All renovation, remodeling, and rehabilitation activities that disturb painted areas, including scraping paint, removing siding, replacing windows, will create some dust. Additionally, some areas, such as window troughs and loose areas near a building's foundation, typically accumulate dust and paint chips. You must consider these factors when approaching the job and develop an appropriate plan to deal with the potential lead dust. If your work will NOT disturb ANY painted surfaces or areas where lead dust can accumulate, you do not have to use lead-safe work practices.

What precautions are needed?

- The amount of dust created is directly related to the size of the work area, condition of the structure, and tools, materials, and dust control methods used. Later modules will present descriptions of the necessary precautions you should take while setting up the work areas, performing renovation, remodeling, or rehabilitation activities, and cleaning up.

If the job will disturb paint surfaces, will it create high dust that will cause you to take extra precautions?

- Work, such as demolition, or removing old paneling, siding, windows, or wall-to-wall carpeting, can create high dust levels. Additionally, surfaces with deteriorated or chipped paint are more likely to generate high levels of dust than intact surfaces. The level of dust a job will create directly affects other parts of your job, including the materials and equipment required, precautions taken during set up, and the control methods used.

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Module 2 Instructor Notes

Slide 2-9: Scheduling work

- Students should keep the three goals in mind when scheduling work:
 - Minimize hassle to residents
 - Limit work area
 - Minimize labor costs
- **Discussion question**
- Ask the students for examples of projects where all the dust generating activities can be performed separately from renovation, remodeling and rehabilitation activities and projects where they may need to be performed at the same time.
 - Potential answers for separating activities include: Demolishing a wall, replacing kitchen cabinets
 - Potential answers for not separating activities include: removing and replacing a window and trim covered with lead-based paint, electrical work done in small areas on walls and ceiling covered with lead-based paint
- **Taking High Dust Jobs into Account**
- Be sure to emphasize the last paragraph in the student notes. Contractors need to use their experience and common sense to determine if tasks are high dust jobs or low dust jobs.

Scheduling Work

◆ How will I schedule lead-safe work practices?

- Minimize hassle to residents
- Limit the size of the work area
- Minimize labor costs

◆ Take high dust jobs into account



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How will I schedule the lead safe work practices?

- When scheduling lead safe work practices, you should keep three goals in mind:
 - Minimize the hassle to the residents
 - Limit the size of the work area
 - Minimize extra labor costs
- In most cases, it is preferable to complete lead hazard control activities before beginning other renovation, remodeling, or rehabilitation activities. This will minimize the possibility of distributing lead dust outside of the work area. This may also allow most of your work to be done using traditional methods - without the precautions necessary when working with lead-based paint - thereby simplifying the coordination of other project-related activities. It would also minimize the hassle to the residents by reducing the areas of the house they should not enter because lead dust activities are taking place.
- For large projects, it may make more sense to conduct lead safe practices at the beginning of each phase of the project. For example, if you are renovating all of the bathrooms in a house, you may work in one bathroom at a time. In this case, it makes sense to perform lead-safe work practices at the beginning of each individual renovation activity as opposed to at the beginning of the entire job.

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Module 2 Instructor Notes

Slide 2-10: How Will Lead Affect the Job?

- This slide asks students to think about the extra time and cost that the lead-safe work practices will take.
- Place a transparency of the materials and supplies checklist on the overhead. Tell students that it is located on the back of the worksheet for evaluating the job in Module 4.
- **Discussion question**
 - Talk about the various costs associated with the lead-safe work practices. Can the students estimate how much a typical job will cost? How much extra time it will take? Are there other issues that should be taken into consideration other than time and cost?
 - Experienced contractors indicate that costs from using lead-safe work practices will typically increase the total cost of the project by 10 to 30 per cent. The degree of increased costs varies based upon several factors including the nature of the work, age of the residence, and the condition of the paint.
 - Generally, contractors will spend much of the additional time educating the client, and conducting cleanup of the job site. Remind participants that if a job is done over multiple days, the property owner may want to re-enter the residence each day. If the contractor cannot talk the owner out of entering the site after working hours, the site should be cleaned up every day.

How Will Lead Affect the Job?

◆ How much extra time will the lead-safe work practices take?

- Talking with client
- Set-up
- Work
- Clean up

◆ What elements of the job can increase costs?

- Labor
- Supplies (see checklist in Module 4)

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2-10

How will the lead activities affect my job?

How much extra time will the lead-safe work practices take?

- This question only applies to the portion of the renovation, remodeling, or rehabilitation job dealing with lead-safe work practices. These activities will affect both worker and resident access to areas of the house where the work is taking place. The length of time the lead-safe practices requires could significantly affect the scheduling of other activities throughout the house. It is important to estimate the extra time associated with each phase of the lead-safe work practices when you are planning the project and developing cost estimates. Talking with the client and educating the client about lead-safe practices will also take up time.

What are the extra costs?

- The cost of lead-safe work practices and lead dust control techniques will vary depending on the project's size, scope, and scheduling. You should consider the following factors when developing a cost estimate:
 - Extra labor costs associated with performing the activities
 - Extra supplies needed
- To ensure you have the necessary materials on hand at the beginning of a project, it is helpful to review the checklist of supplies and materials listed on the back of the worksheet in Module 4. This list includes supplies that will typically be used on all jobs as well as specialized materials and supplies that may be required only under unique circumstances. All of the materials and tools in this checklist will be discussed in later modules.

Module 3

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

Slide 3 -1: Module 3 Setting Up Your Workspace to Contain Lead Dust

Module 3

Setting Up Your Workspace to Contain Lead Dust

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Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

Slide 3-2: Module 3 Overview

- This module covers the bulleted list of topics on the slide. Review this list with the class participants. Do not spend a lot of time on this slide as the slides in the rest of the module answer the questions
- Module objective. The purpose of this module is to learn how to follow a few simple set-up techniques that will stop the spread of lead-contaminated dust to non-work areas.
- It is critical on this slide that participants understand high dust and low dust jobs. The concept of high dust jobs is discussed throughout the course. The working definition in the student notes is an informal definition that the students may use as a guideline to differentiate between high and low dust jobs.
 - Ask the participants for examples of high and low dust jobs. Ask them about the reasoning behind their examples—why is one particular job high dust and another low dust?
 - Emphasize to the participants that the work practices and equipment used on a job and the size of the job are factors that will affect the amount of dust generated. For example, vigorous hand sanding a large work area could create enough dust that it might extend beyond five feet from the work area.

Module 3 Overview

♦ What is containment?

♦ High Dust Activities

- Hand scraping large areas
- Demolition

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Upon completion of this module you will be able to:

- Perform set-up techniques to contain lead dust and allow for easier cleanup at the end of the day and at the completion of the job.
- Identify appropriate set-up techniques for high dust jobs that may require additional containment.

What is a high dust job or activity?

- A working definition of a **high dust job** is one with activities that creates dust and debris that will spread beyond five feet from the area that you are working on. Conversely, a **low dust job** is one in which dust and debris will not spread beyond five feet from the work area.
- In general, jobs that involve only a small work area create less dust than jobs that involve a larger work area. However, in addition to the size of the job, the work practices (e.g., sanding), and equipment (e.g., power sander) used will affect how much dust is created. So, for example, using a power sander without a HEPA filter vacuum attachment on a two square foot area could be considered a high dust job. Using power tools equipped with HEPA filtered vacuum attachments will create less dust than using power tools without these attachments.
- Examples of high dust activities include:
 - Hand scraping large areas - interior and exterior
 - Demolishing painted surfaces
 - Using circular or reciprocating saw*
 - Removing dry residue and paint after using chemical strippers*

Allowed by HUD Rule **only if done with lead safe work practices*

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Module 3 Instructor Notes

Slide 3-3: What is Containment?

- This slide may best be covered using a question and answer format. The following slides in the module identify equipment needed and how to do containment set-up, so don't try to cover everything in the module on this slide.
- Questions for class discussion:
 - How does pre-cleaning with a HEPA vacuum protect co-workers and residents? [Answer: Pre-cleaning with a HEPA vacuum may reduce existing lead dust hazards without dispersing lead dust into the air.]
 - How does containment protect co-workers and residents? [Answer: keeps lead-contaminated dust in a specific area with workers who are trained and working with or wearing proper equipment. It also keeps residents out of the work area until the job and cleanup is complete.]
 - How does containment make clean up easier at the end of a job? [Answer: by limiting the cleanup area to approximately the work area or two feet beyond the work area.]

What Is Containment?

- ◆ **Keeping lead-contaminated dust in the work area**
- ◆ **Benefits of containment**
 - Protects residents and workers
 - Easier clean-up at the end of the job
 - More likely to pass clearance
- ◆ **Not required for working on areas below de minimis levels**

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3-3

What is containment?

- **For purposes of this training, “containment”** is anything that stops lead-contaminated dust from spreading beyond the work area to non-work areas.
- In general, there are many degrees of containment, ranging from simple plastic sheeting on the floor surrounding a small work area to a fully sealed dust room (discussed later in this module). Some types of containment are more effective than other types. A reusable drop cloth is not effective because it can trap and hold dust and paint chips, and can transport lead-contaminated dust from one job site to another. It is not an effective form of containment for working in homes with lead-based paint.

Benefits of containment

- **Reduces the risk to you and residents.** Following the work area set-up suggestions of this module will protect you, your co-workers, and residents from the negative health effects of lead while remodeling, renovating, or rehabilitation. Reduced risk to you and co-workers is also dependent upon wearing proper personal protection equipment.
- **Easier clean-up.** The pre-work set-up process is essential to keeping lead contaminated dust within the work area where it can be easily cleaned. Proper containment of the work area helps to limit the areas you need to clean up after the job is complete. This saves time and money for cleanup.

De Minimis Levels

The HUD “de minimis” levels are:

- 20 square feet on exterior surfaces
- 2 square feet in any one interior room or space
- 10 percent of the total surface area on an interior or exterior type of component with a small surface area

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Module 3 Instructor Notes

Slide 3-4: Current Interior Set-Up Practices Spread Lead-Contaminated Dust

- After defining containment in the previous slide, this slide identifies common set-up practices that do not contain lead-contaminated dust.
- Ask the participants: What can you identify in the illustration that indicates a lack of containment of lead dust?
 - Drop cloth. When the drop cloth is lifted and moved (even during cleanup) it will leave dust in the air and on the floor or furniture. Also, if reused at a new worksite, lead-contaminated dust from the previous worksite will move to the new site.
 - Furniture in the room that is not covered. Lead-contaminated dust will settle on the uncovered furniture and be transferred to anyone who comes in contact with it.
 - Open door and windows. Allows lead-contaminated dust from exterior work to enter the room and from interior work to get outside. Breezes entering the room from open windows also spread dust far beyond the interior work area.
 - Dry sweeping with broom or using shop vacuum. Discourage students from using. Using these two items often causes settled dust to move into the air again where it can be transported throughout the room being clean and to other rooms in the house.
- Emphasize that these practices are not wrong for all renovation, remodeling, and rehabilitation activities, but for jobs that disturb *lead-based* paint, common practices should be modified to ensure that lead dust is contained.

Current Interior Set-Up Practices Spread Lead-Contaminated Dust



- ◆ Reusable drop cloth
- ◆ Furniture in the room
- ◆ Open doors and windows
- ◆ Broom or shop vacuum

Do not use on jobs where lead is present!



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Current practice for interior set-up typically involves

- **A reusable drop cloth** is an improvement over not using any drop cloth, but it can carry dust from one job site to other job sites, and contaminate vehicles and storage areas. Some of the dust captured by a drop cloth falls to the floor when folding the cloth to carry away. However, some of the dust stays with the drop cloth. When it is used again it may contaminate the new (clean) job site with lead-contaminated dust.
- **Allowing furniture to remain in the work area** while the work is being performed. Lead-contaminated dust may fall and remain on these furnishings after the job is completed. Residents could easily come into contact with the lead-contaminated dust on the furnishings and get poisoned.
- **Allowing residents access to work area** while the work is underway. The residents are then exposed to the lead-contaminated dust and can track the dust to other parts of the building where it could linger. Again, residents could easily be exposed to the lead-contaminated dust on the furnishings and get poisoned.
- **Open windows and doors** allows lead dust to float into other parts of the building or over onto neighboring property.
- **Brooms and shop vacuums are typically used to clean-up.** Both clean-up methods capture some dust, but shop vacuums especially can put more dust into the air than they clean up if the filters are dirty or inadequate. Vigorous sweeping may also put a lot of dust into the air. To be effective, containment must be practiced even when cleaning up after the job.

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Module 3 Instructor Notes

Slide 3-5: Overview of Interior Set-Up Steps

- Use this slide to highlight the upcoming four steps. Do not go into detail about the steps here: this slide is merely an introduction so that participants will have a structure to organize the information.

Overview of Interior Set-Up Steps

- ◆ Step 1: Limit access
- ◆ Step 2: Cover belongings that cannot be moved out
- ◆ Step 3: Cover floors
- ◆ Step 4: Close windows, doors, and HVAC system
- ◆ Special consideration for high dust jobs
- ◆ Not needed for jobs below HUD's de minimis levels of areas to be disturbed

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3-5

Overview of interior set-up steps

- Details for these steps are on the following several pages. These four steps will help contain lead dust to the work area for interior jobs.
- See page 13 in the *Lead Paint Safety Field Guide* for additional information. Appendix 1 contains a copy of the text from the *Lead Paint Safety Field Guide*.

The de minimis levels are:

- 20 square feet on exterior surfaces
- 2 square feet in any one interior room or space
- 10 percent of the total surface area on an interior or exterior type of component with a small surface area

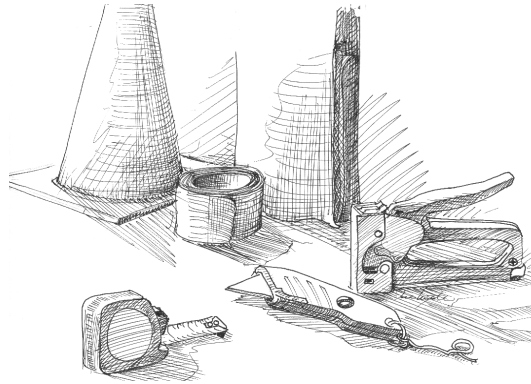
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Module 3 Instructor Notes

Slide 3-6: Job Set-Up Toolkit

- Some contractors divide their work into set-up and containment, safe work practices and equipment, and clean up. They then create three separate toolkits for each phase of the work. This makes it easy to keep all of the necessary supplies and equipment together in one place as work is begun, performed, and finished.
- This slide highlights important items in the **set-up toolkit**. Consider bringing in a set-up toolkit to show items or pass around in class. Actually having the toolkit in the class for participants to see first hand will bring home the message that by being organized it is easier to do set-up and containment.
- Show the class samples of the various tools and supplies that are used during set-up.
- Participants may be interested in knowing where they can go locally to obtain some of the supplies or equipment. Therefore, it might also be helpful to bring in a contractor's supply magazine and to have a general knowledge of prices and where the participants can obtain these supplies and equipment.
- Ask participants: Are any items that they would want to add to the toolkit? If so, what are they used for and how would they benefit set-up for containment?
 - For assistance in locating N-100 respirators, contact the National Lead Abatement Council at www.nlac.org.

Job Set-Up Toolkit



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3-6

Typical items for work area set-up to contain lead-contaminated dust

Barriers, such as:

- Rope or other barrier
- Tape (bright color preferable)
- Saw horses
- Orange cones or other similar marker

Coverings for Unmovable Furniture, Fixtures, Plants or Out door Play areas:

- Duct tape, painters tape, or masking tape
- Stapler
- Heavy duty plastic sheeting, such as 4-6 mil plastic sheeting
- Utility knife or scissors
- Disposable mesh materials such as burlap, cheesecloth, or landscaping mesh

Other Set-Up Containment Items:

- Tack pad (sticky pad for walking on to remove dust from soles of shoes)
- Small disposable towels or wipes
- Misting bottle

Worker Protection (Required above the PEL):

- Coveralls, gloves (leather, cloth, plastic or rubber as appropriate), goggles
- Disposable shoe covers
- Appropriate respiratory protection
- Painters' hats

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

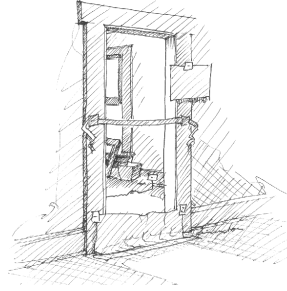
Slide 3-7: Interior Set-Up Step 1: Limit Access

- Ask participants: Have you ever limited access to your work area? If so, how? How successful was this? Would you have done this differently?
- Ask participants: Can you think of any other ways to limit access to the work area?
- Be sure to highlight all of the points on the slide if the class discussion has not addressed all of them.

Interior Set-Up

Step 1: Limit Access

- ◆ Instruct residents to stay away from work area
- ◆ Do not allow eating, drinking, or smoking in the work area
- ◆ Do not allow young children (under 6 years) or pets near work area
- ◆ Place a barrier or tape across entrances



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3-7

Restrict access to the work area and ask residents to stay away while work is underway

- Restricting access to the work area will avoid unnecessary exposure of residents, especially children, to lead dust and minimize its spread to non work-areas.
- Tell the residents to stay away from the area as much as possible. Residents and pets coming and going can easily track lead-contaminated dust throughout the home and into areas that are not being worked on and therefore to areas that are unlikely to be cleaned up promptly.
- This is especially true for small children under six years old. Be sure to explain to residents that this is for their own protection and that small children are most at risk of health problems from exposure to lead.
- You may need to provide an indication of how long you will be working in a particular area so that residents can plan ahead to obtain items that they may need before you begin working.

Place a barrier across entrances

- A physical barrier, such as a cone or masking tape, should be placed across doorways to remind residents to stay away, especially in buildings where more than one family lives. The barrier serves as a reminder to residents that they should not enter the work area, and also signals that the area has not yet been cleaned up.

Do not allow eating, drinking or smoking in the work area

- This is primarily a protection for workers, but is also important if residents are living in or near the work area. Post signs that prohibit eating, drinking, or smoking in the work area. Dust in the air can land on food or be breathed when smoking. If food is set on an unwashed surface, it can easily pick up lead-contaminated dust, which is swallowed when eating the food.

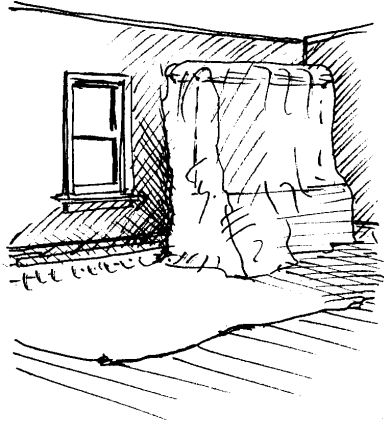
Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

Slide 3-8: Interior Set-Up Step 2: Cover Belongings

- Highlight the importance of covering fixtures and furnishings to prevent dust from settling on these hard-to-clean objects.
- Emphasize that this activity is similar to the current practice to cover the furnishings with dust cloths but instead they will use plastic protective sheeting. Thicknesses of 4-6 mils are appropriate.
- Tell the participants that the dust that lands on these fixtures and furnishings can remain long after the job is complete. Also, cleaning these fixtures and furnishing could pose a hazard to the resident after the job is complete.
- Describe the illustration. Point out how *all* fixtures and pieces furniture are covered.
- Distribute pieces of plastic sheeting to the class. Allow all the students to feel it.
- It may be helpful to know names of local hardware stores and suppliers that sell protective sheeting and the typical price per foot of common types or sizes.

Interior Set-Up Step 2: Cover Belongings



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♦ Cover furniture and objects in protective sheeting

- Furniture
- Carpet
- Lamps, pictures, and other fixtures



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and Urban Development

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Cover furniture and other objects in the room with protective sheeting

- Cover all objects that were not removed from the room in protective sheeting. Completely cover all non-movable furniture, carpets, and other personal items with protective sheeting. Secure the protective sheeting to the floor with tape so that no dust can get onto the covered items.
- Heavy-duty protective sheeting such as thick heavy duty plastic is commonly used in many rehabilitation jobs. Protective sheeting can be bought at many hardware stores.
- If it is a high-dust job, remove the furniture from the work area.

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

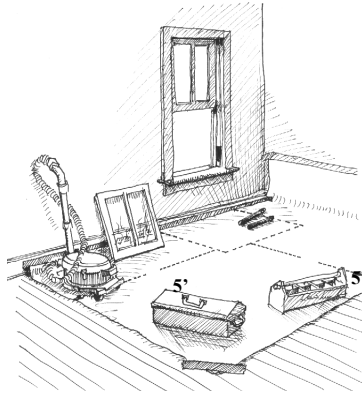
Module 3 Instructor Notes

Slide 3-9: Interior Set-Up Step 3: Cover Floors

- Highlight the importance of covering the floor for easier clean up.
- Emphasize that this activity is similar to the current practice of covering the floor with a drop cloth but instead they will use heavy-duty plastic sheeting.
- Highlight the importance of using a tack pad, removing booties, wiping shoes, or laying plastic on common traffic areas to prevent lead contaminated dust from being carried to other areas of the building. It is quite common to find high lead-contaminated dust levels along the path from the work area to the bathroom.
- A tack pad acts like flypaper. It is a sticky paper or cloth that removes dust or debris from a worker's shoes when they walk on it. Tack pads are available from specialty construction catalogs.
- It may be helpful to know names of local hardware stores and suppliers that sell tack pads, shoe wipes, or booties and the typical cost of each item. If possible bring in samples of these items to show to the class.
- Advise students of the importance of cleaning shoes each time they step off the sheeting. Tack pads may be used if available.
- Use of a catch bag attached to wall underneath windows is a useful technique for collecting debris from window work.
- Ensure that students understand the vacuum in the picture should be a HEPA vacuum.

Interior Set-Up

Step 3: Cover Floors



♦ Cover floors with protective sheeting

- At least five feet on all sides of work area
- 2nd smaller layer if using chemical strippers
- Place a tack pad at edge of protective sheeting, lay protective sheeting on frequently used walking paths to outdoors and bathrooms

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3-9

Cover Floors

- Use protective sheeting to cover the floor. The protective sheeting should extend at least five feet to the left, right and front--and in some cases to the back--of the work area. It should be tightly secured to baseboard or flooring using duct tape, painters tape, or masking tape. The corner edge of the protective sheeting should be reinforced using duct tape or a staple.
- Use of a catch bag will assist in keeping dust and debris off of the floor and can increase efficiency of cleanup.
- A second smaller layer of protective sheeting should be used with chemical strippers. This second layer should be taped to the top of the first layer. Place the second layer immediately below the work area. This layer will capture any waste and aid in cleaning up.
- Tools that are used frequently should be left within the work area throughout the job to avoid tracking dust to non-covered areas.
- Consider covering shoes with removable booties, wiping off the tops and soles of shoes with a damp paper towel each time you step off the sheeting, or using a "tack pad" that removes dust from the soles of shoes. Immediately place used paper towels in a covered garbage bin. A tack pad can be found at most hardware stores or bought through a supply catalog; it is a sticky pad that you walk on to remove dust from the soles of your shoes. The tack pad can be taped to an outer corner of the sheeting.
- Note: If tack pads are not readily available to you, contact the National Lead Assessment and Abatement Council (NLAAC) at (800) 590-NLAC for information on where to get them.

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

Slide 3-10: Interior Set-Up Step 4: Close Windows, Doors, HVAC

- Closing windows, doors, and HVAC vents prevents dust from leaving the work area.
- Close and seal windows, doors, and vents in the containment zone (e.g., within five feet of the work area). If doors and windows are left open, air flows freely through the work area and into non-work areas. Because lead dust is so small, it can easily spread to other areas of the house. Less air flowing through the work area means that there is less chance that lead-contaminated dust will be blown out of the work area.

Interior Set-Up

Step 4: Close Windows, Doors, HVAC

- ◆ **Close and seal windows and doors**
- ◆ **Close and seal HVAC vents**

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3-10

Close and cover windows and doors

- Close and seal windows (if no work is being done on the window) and doors, including closet and cabinet doors in the work area.

Close and seal HVAC vents

- Heating ventilating and air conditioning (HVAC) systems distribute air throughout the building and thus can allow dust to move to other rooms. Close and cover the HVAC vents in the work area to prevent air from blowing the dust out of the contained work area and to prevent dust from getting into the HVAC system.

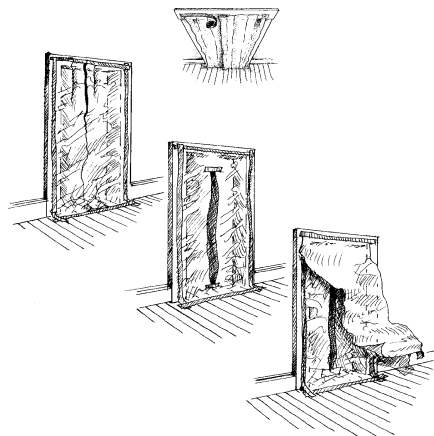
Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

Slide 3-11: Special Considerations For Interior High Dust Jobs

- Avoid doing high dust jobs on site, unless absolutely necessary.
- Ask participants for some examples of high dust jobs [these were listed earlier on page 3-2 such as sawing, use of power tools to prep painted surfaces, planning, and demolition of walls, door and window frames]
- Highlight the importance of moving fixtures and furnishings out of the high dust work area to prevent dust from settling on these hard-to-clean objects.
 - Tell the participants that the dust that can land on these fixtures and furnishings can remain long after the job is complete. Also cleaning these fixtures and furnishing could pose a hazard to the resident after the job is complete.
 - Removing residents' personal belongings will also reduce the chance that residents need to enter the work area.
- Tell the class that for high dust jobs they should seal the windows, doors, and HVAC vents with protective sheeting and tape.
 - If feasible, consider setting up a demonstration of the 2-layer "air lock" system covering the entrance to the room.
 - Remind the class about the importance of closing the HVAC vents and sealing them with protective sheeting and cardboard for high dust jobs. The cardboard protects the protective sheeting from the force of the air coming through the vents and helps maintain the seal.

Special Considerations for Interior High Dust Jobs



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3-11

- ◆ Remove furniture, fixtures and belongings from work area
- ◆ Cover door openings with 2 layers of protective sheeting to form an “airlock”
- ◆ Close and cover HVAC vents

Remove throw rugs, draperies, and furniture from the work area when completing a high dust job

- Before starting work, request that the homeowner remove furniture and fixtures from the room. This will prevent lead-contaminated dust from getting into these items.

Cover door openings with 2 layers of protective sheeting

- Covering the door with this two-layer system will contain the dust within the work area. Follow the steps below:
 1. Cut first plastic sheeting layer slightly wider and longer (three inches) than doorframe.
 2. Make small “s” fold at the top of sheeting and tape to top of doorframe. Make a similar “s” fold at the bottom of the sheeting and tape to flooring. This will ensure that the plastic is not taut. Staple top corners for reinforcement.
 3. For exiting and entering the room, cut a long vertical slit in middle of protective sheeting; leave six inches at top and bottom uncut. Reinforce the top and bottom of the slit with tape to prevent the plastic from tearing.
 4. Tape a second layer of protective sheeting to top of doorframe. This layer is cut slightly shorter than doorframe so that it will hang down flat against the first sheet of plastic.
 5. Tape and staple top corners of second layer to doorframe and first layer. Leave hanging over first layer.
- See Page 46 in the *Lead Paint Safety Field Guide* for more information on how to put the two-layer system in place.

Close and seal HVAC vents in the room

- Turn off the HVAC system for work area. The vents should then be closed and covered with cardboard and protective plastic sheeting. After the work is complete the vent covers should be removed and washed.

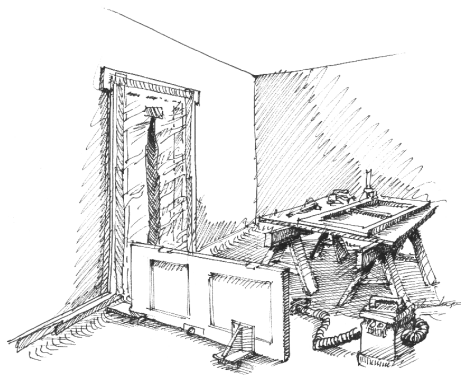
Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

Slide 3-12: Special Considerations For Interior High Dust Jobs

- Ask participants what kind of work they would do in a high dust room. [Answer: Working on components that can be removed from other rooms—such as doors, windows, or cabinets—and that require extensive surface preparation. Any work that requires significant hand or power scraping and sanding, such as wall or floor surface preparation or demolition.]
- Ask the participants for examples of areas of the house that would be an appropriate choice to set-up a dust room. [Answer: A room that residents do not need to use (e.g., not the bathroom or kitchen); a room in which a lot of work would be done regardless of whether there were other components that could be moved into the room; a room that has adequate space in which to move around; a room that can be easily sealed off from the rest of the house; a room that is close to the work area.]
- When referring to the slide, point out that the recommended four interior set-up steps for high dust areas are:
 - Step 1: Limit access
 - Step 2: Remove furnishings (for low dust jobs, just need to cover furnishings)
 - Step 3: Cover the floor
 - Step 4: Seal windows, doors, and HVAC vents in the room
- Working off-site is a good alternative. This does not include working in the yard, unless the ground and surrounding areas are protected.

Special Considerations For Interior High Dust Jobs



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- ◆ For work on removable objects that create lots of dust
- ◆ Select a room that can be easily closed off
 - Follow Steps 1 through 4 for interior set-up
 - Follow the procedures for high dust jobs
- ◆ Do the work off-site



3-12

Consider setting up a work-room (“dust room”) for high dust-generating work on components that can be moved out of their original room and into the dust room

- A dust room prevents the spread of lead-contaminated paint and dust to non-work areas and also makes clean-up easier.
- Use this technique for high dust activities, for example, planning and scraping doors or window sashes where you are maintaining the original windows.
- Set up a dust room if work is being done on components in a room that residents must have access to, such as the kitchen. Rather than keeping the resident out of the kitchen, remove the components to the separate dust room and complete surface preparation there. After preparation is complete, the components can be returned to the kitchen.

Select a room that can be easily closed off from the rest of the home to use as a dust room, or work off-site

- A dust room can be any room that can be closed off. Residents should not have to enter this space for the duration of the job. For example, a spare bedroom or other unused room that residents do not need to access during the time that the work is being performed.
- The dust room should be close to the work area, if possible.
- Follow the four set-up steps for all work with minor modifications or additions: 1) limit access, 2) remove furnishings, 3) cover the floor, 4) seal windows, doors, and HVAC vents.
- Workers should wear protective clothing, NIOSH approved respirators (e.g., N100), and safety goggles.
- Plan your work so that necessary supplies and equipment are in the room to minimize the number of trips outside the room while work is being performed.
- See Page 14 in the *Lead Paint Safety Field Guide* for more information.

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

Slide 3-13: Current Exterior Set-Up Practices Spread Lead-Contaminated Dust

- Ask participants to describe the illustration. Highlight the drop cloth; open door and windows, paint chips, and the children playing near the work area.
- Emphasize that these practices are not wrong for all renovation, remodeling and rehabilitation activities, but for jobs that disturb *lead* paint, these practices should be modified slightly.
- Review how current practices are not appropriate for jobs that disturb lead paint by walking participants through the key points in the student notes below the slide.
- Encourage careful and proper containment activities when working outside.

Current Exterior Set-Up Practices Spread Lead-Contaminated Dust



- ◆ Ground uncovered
- ◆ Reusable drop cloth
- ◆ Paint chips
- ◆ No barriers
- ◆ Windows and doors open

**These practices can
poison children!**



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3-13

Current practices for exterior set-up

- **Leaving the ground uncovered** allows lead contaminated dust to get into the dirt, washed into storm drains, and into nearby play areas.
- **Covering with reusable drop cloth.** Similar to the problems associated with using a reusable drop cloth for interior jobs, a reusable drop cloth for exterior jobs can carry dust from one job site to other job sites. Some of the dust captured by a drop cloth falls to the floor when folding it to carry away. However, some of the dust stays with the drop cloth to the next work site, thus potentially spreading lead-contaminated dust to a new work site.
- **Small paint chips** and piles of dirt are often overlooked. This poses a considerable hazard to small children.
- **Residents and passers-by usually have unlimited access to area.** Similar to interior work, residents and passers-by may come into contact with lead-contaminated dust and breathe or swallow it.
- **Windows and doors are left open** and may allow lead contaminated dust to enter the house.

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

Slide 3-14: Overview of Exterior Set-up Steps

- Use this slide to highlight the upcoming two steps. Do not go into detail about the steps here.

Overview of Exterior Set-up Steps

- ◆ Step 1: Establish work area
- ◆ Step 2: Close windows and doors and keep closed
- ◆ Not needed for jobs below HUD's de minimis levels of areas to be disturbed

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3-14

Two steps for exterior set-up to contain lead dust

- Details for these steps are on the following two pages. These two steps will help contain lead dust to the work area for exterior jobs.
- See page 22 in the *Lead Paint Safety Field Guide* for more information.

The de minimis levels are:

- 20 square feet on exterior surfaces
- 2 square feet in any one interior room or space
- 10 percent of the total surface area on an interior or exterior type of component with a small surface area

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

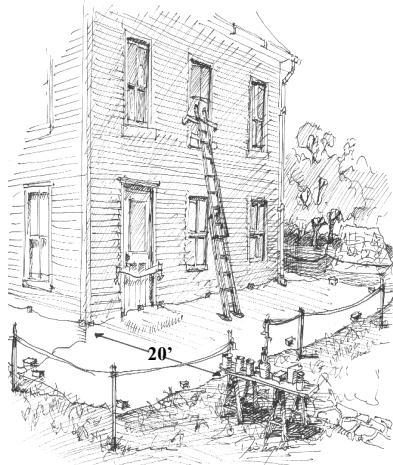
Module 3 Instructor Notes

Slide 3-15: Exterior Set-Up Step1: Establish Work Area

- Review the importance of protecting the ground and gardens from lead-contaminated dust. This lead can remain in the dirt where children play and pose a significant risk. Covering the plants with a mesh material like landscape fabric, burlap, or cheesecloth will help reduce the amount of lead-contaminated dust that falls on the play areas and plants.
- The extra length of the protective sheeting is necessary because the wind can blow the dust further away.
- Cover and seal with plastic all exterior air conditioner or HVAC intake vents and dryer vents.
- The sheeting can be taped to the house or a 2x4 can be wrapped in protective sheeting and placed next to the house if tape will not stick. At the loose edges, the sheeting can be weighted down with stones, rocks, or any heavy object to prevent the sheeting from flapping or lifting off the ground.
- Saw horses, tape or orange cones remind residents and alert passers-by to stay away from the work area.
- All toys and belongings should be removed from exterior work areas as part of set-up.

Exterior Set-Up

Step 1: Establish Work Area



- ◆ **Cover the ground with protective sheeting**
 - If space permits, extend at least 10 feet from work area
 - Cover nearby vegetable gardens and children's play areas
- ◆ **Limit work area access**
 - Establish a 20 foot perimeter around work area if space permits



3-15

- **Cover the ground with protective sheeting**

If space permits, lay protective sheeting on the ground below the work area to at least 10 feet from the house. This creates a visible work area and helps remind residents and passers-by that they should not enter the work area unless they have a compelling need. Note: Black plastic can kill plants.
- **An option for covering grass, shrubs, and gardens is a disposable mesh material** such as landscape fabric or burlap. Landscape fabric is an inexpensive plastic mesh that is often used by landscapers. It can be found in many plant nurseries or hardware stores. This covering will protect the soil and plants from lead contamination. Remember children often play in the dirt and may put their hands in their mouth while playing. Any dirt on their hands will go into their mouths and may be swallowed.
- **Remove toys and other items from work area** and cover all play areas including sandboxes.
- **Staple or tape the protective sheeting to the wall** of the building, or use a 2x4 to hold the material next to the wall. Use heavy objects (e.g., rocks) to weight the other edges of the protective sheeting to the ground so that it won't blow in the wind.
- **When using ladders on plastic sheeting** consider placing a sturdy piece of plywood on the plastic and then setting the ladder on the plywood. This will prevent the ladder from puncturing the plastic and also will provide a stable surface for the ladder.

Limit work area access

- Limit access to work area by placing orange cones, saw horses, or tape around a 20-foot perimeter of the work area. This will help to discourage residents and passersby from entering the work area.

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

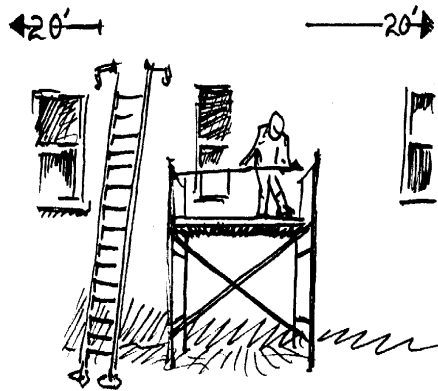
Module 3 Instructor Notes

Slide 3-16: Exterior Set-Up Step 2: Close Windows and Doors

- Describe the illustration. State the importance of closing windows and doors to prevent dust from blowing into the building.

Exterior Set-Up

Step 2: Close Windows & Doors



- ◆ Close nearby doors and windows within 20 feet of the work area

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3-16

Close and cover windows and doors

- All windows and doors within 20 feet work area should be closed to prevent dust from entering the home. Consider requesting that the neighbors also close their windows and doors.

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

Exercise

- The following pages include instructor notes for managing the exercise, an instructor answer key, and a student version of the exercise.

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

MODULE 3 EXERCISE Instructor Notes

Objective: Review set-up methods to contain lead dust and allow for easier clean up.

Length: Total Time 30 minutes; 20 minutes to answer; 10 minutes to report and debrief.

Directions:

- Introduce the exercise and the objective. Describe what each group should do.
- Divide the class into groups of between 3 and 5 participants.
- Tell the class that they will have 20 minutes to look at the illustrations and determine the three set-up techniques that do not contain lead dust and identify three techniques that they could use to contain lead dust.

Debriefing Procedure:

Take 10 minutes for the debriefing.

- Have one group present their answers for the first illustration. Then ask other groups if they had different answers for the first illustration. If so, select one other group to present and explain their answers. If not, ask other groups why they selected the specific methods in their answer.
- Repeat this process for each illustration. Be sure to select different groups to present on each illustration to ensure that each group has a chance to present.
- The point of this discussion is to help participants gain a clear understanding of the concept of containment—what it is and what it is not—and how to set-up the work space to preserve containment.

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3 Instructor Notes

MODULE 3 EXERCISE Instructor Notes

Objective: Review set-up methods to contain lead dust and allow for easier clean up.

Length: Total Time 30 minutes; 20 minutes to answer; 10 minutes to report and debrief.

Directions: In groups of three or four take 20 minutes to review the three illustrations below and:

- Identify three set-up methods that encourage the *spread* of lead dust beyond the work area;
- Identify three techniques that could be used to *reduce* the spread of lead contaminated dust to non-work areas;
- Assign one person to report your group's answers to the rest of the class.
- Full size illustrations are attached.

Illustration 1



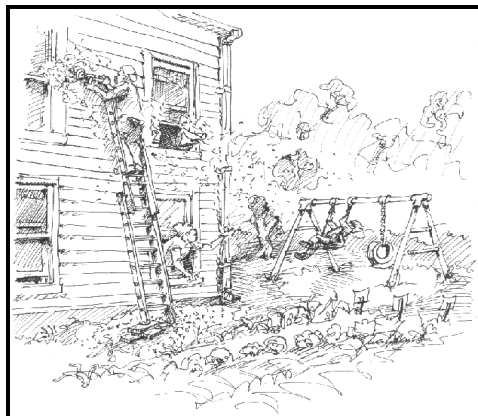
Increase the Spread of Dust and Debris: 1) Drop cloths carry lead-contaminated dust to other jobs. 2) Lead-contaminated dust will fall onto the drapes creating a hazard for the residents. 3) Open windows and doors allow dust to be blown into and outside of the house. 4) There is no barrier to indicate that residents should not enter the area.

Reduce the Spread of Dust and Debris: 1) The small child should not be allowed near the work area. 2) Use plastic protective sheeting to cover furniture and the floor. 3) The drapes should be removed from the work area. 4) Barriers should be installed. 5) Adult residents should be told to stay away from the work area and keep children away

Illustration 2

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3



Increase Spread of Dust and Debris: 1) Wastewater is running on to the nearby play area. 2) Children are playing nearby. 3) The exposed pile of paint chips poses a significant hazard to the residents.

Reduce Spread of Dust and Debris: 1) Lay landscaping mesh to capture paint chips and let water into ground. 2) Children should be told to stay away from the work area and a barrier erected. 3) The pile of paint chips should be vacuumed up frequently and not left on the ground where wind may scatter them onto the play area.

Illustration 3



Increase the Spread of Dust and Debris: 1) This employee is working on the door to the room which has been removed from its hinges. The significant amount of dust being generated and the ability to remove the door from its location suggest that a dust room should be set-up. 2) There is no protective sheeting on the floor. 3) The windows and doors are open. 4) There is also no evidence of any barriers or signs limiting access to the work area.

Reduce the Spread of Dust and Debris: 1) Create a dust room. 2) The floors and windows should be lined with protective sheeting. 3) The door should have the 2- layer flap system. **Option:** Do the work off-site.

Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3

MODULE 3 EXERCISE

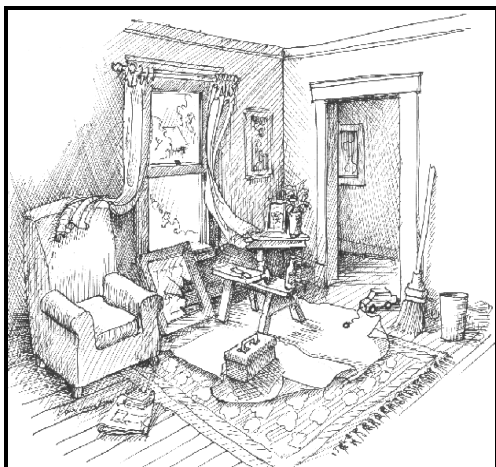
Objective: Review set-up methods to contain lead dust and allow for easier clean up.

Length: 30 minutes, including discussion of answers

Directions: In groups of three or four take 20 minutes to review the three illustrations below and:

- Identify three set-up methods that encourage the *spread* of lead-contaminated dust and debris beyond the work area;
- Identify three techniques that could be used to *reduce* the spread of lead-contaminated dust and debris to non-work areas;
- Assign one person to report your group's answers to the rest of the class.

Illustration 1



Increase the Spread of Dust and Debris

Reduce the Spread of Dust and Debris

Illustration 1



Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing

Module 3

Illustration 2



Increase the Spread of Dust and Debris

Reduce the Spread of Dust and Debris

Illustration 3



Increase the Spread of Dust and Debris

Reduce the Spread of Dust and Debris

Illustration 2



Illustration 3



